**ABS****COPY****WELDING CONSUMABLE CERTIFICATE**

Certificate No.: 083254-3740087-002_____

Report No.: YO3740087_____

Port of: Yokohama (Kanto), Japan_____



Date: 20 January 2020_____

THIS IS TO CERTIFY

THAT THE UNDERSIGNED SURVEYOR TO THIS BUREAU DID, AT THE REQUEST OF NIPPON STEEL WELDING & ENGINEERING CO., LTD., ATTEND THE PLANT AT NARASHINO, JAPAN, ON THE 8TH DAY OF OCTOBER, 2019 AND ON SUBSEQUENT DATES, IN ORDER TO CARRY OUT A PLANT SURVEY OF FACILITIES AND ASSOCIATED QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND TO WITNESS AND REPORT ON THE ANNUAL APPROVAL TESTING OF WELDING CONSUMABLES; AND,

THAT THE FACILITY IS CONSIDERED CAPABLE OF PROVIDING AN ACCEPTABLE UNIFORM PRODUCT, AND THAT EACH WELDING CONSUMABLE LISTED BELOW WAS FOUND IN COMPLIANCE WITH THE SPECIFICATION INDICATED AND IS ELIGIBLE TO BE PLACED ON THIS BUREAU'S APPROVED WELDING CONSUMABLES LIST IN THE FLUX CORED ARC WELDING SECTION:

TRADE NAME	SPECIFICATION	GRADE OR CLASS	SHIELDING GAS	POSITION	CURRENT/ POLARITY	SIZE
SM-1S	ABS	2YSA H5	CO ₂ (FC)	Flat	DCEP	1.4 mm
SM-1S	ABS	2Y400A H5	CO ₂ (FC)	Flat	DCEP	1.2 - 1.4 mm
SF-3M	ABS	4Y400SA H5	CO ₂ (FC)	All, V-down	DCEP	1.2 - 1.4 mm
SM-3A	ABS	4Y400SA H5	80% Ar- 20%CO ₂ (FC)	All, V-down (Fillet)	DCEP	1.2 - 1.4 mm
SF-47E	ABS	5Y400SA H5 + Manuf. *4	CO ₂ (FC)	All	DCEP	1.2 mm
*4 Y. P. min. 460 N/mm ² , T. S. 570 - 690 N/mm ² , El. min. 22 %, CVN min. 64J at -20 °C.						
SM-47A	ABS	5YQ460SA H5	80% Ar- 20%CO ₂ (FC)	All	DCEP	1.2 mm

TAKUMA SUGIMOTO, SURVEYOR

Note: This Certificate evidences compliance with one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. This Certificate is a representation only that the structure, item of material, equipment, machinery or any other item covered by this Certificate has met one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping as of the date of issue. Parties are advised to review the Rules for the scope and conditions of classification and to review the survey records for a fuller description of any restrictions or limitation on the vessel's service or surveys. The validity, applicability and interpretation of this Certificate is governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof. Nothing contained in this Certificate or in any notation made in contemplation of this Certificate shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.